REMARKS

Reconsideration of the present application in view of the foregoing amendments and following remarks is requested respectfully.

Claims 12-24 are presented. Claims 12 and 17 have been amended, claims 20-24 have been added, and no claims have been cancelled.

I. CLAIMS 12-24 DEFINE PATENTABLE SUBJECT MATTER

A. Summary Of The Claimed Invention

The presently claimed invention defines a method for forming a composite fabric comprising the steps of: 1) forming an arrangement of fibers in contact with composite yarns wherein the composite yarns comprising an elastomeric core and an elastomeric thermoplastic sheath disposed about the core wherein the melting point temperature of the sheath is at least about 10°C, preferably from about 50°C to about 75°C, lower than the melting point temperature of the core and wherein the sheath does not include thermosetting material; 2) heating the arrangement of fibers and composite yarns to a temperature above that of the melting point temperature of the sheath of the composite yarns but below that of the melting point temperature of the core of the composite yarns whereby said fibers are attached to said sheath; and 3) cooling the composite fabric. In certain preferred embodiments, the method comprises forming a woven pile fabric in which the ground warp yarns and the filling yarns comprise composite yarns which are interlaced with pile fibers.

The presently claimed invention uses a core-sheath configuration for the composite yarn component which configuration consists essentially of two different elastomeric materials which differ in melting point temperatures by at least about 10°C, and preferably by at least about 50°C to about 75°C. One important feature of one aspect of the present

invention is that the sheath component of the composite yarn does not include thermosetting material. In another aspect of the present invention, the sheath component of the composite yarn consists essentially of elastomeric thermoplastic material. Moreover, in using such composite yarns, the heating step is controlled so that the fabric is heated to a temperature above that of the melting point temperature of the sheath but below the melting point temperature of the core. The composite yarns of the present invention are particularly well suited for use in indoor and outdoor furniture fabrics for seats, both bottoms and backs, installed in various forms of ground transportation such as automobiles, motorcycles, trucks, buses, trains, etc., as well as various aircraft and marine craft.

B. The § 102 Rejection

Claims 12-15 and 17-19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by JP 06-2240 issued to Imose (the "Imose patent"). This rejection is traversed respectfully.

The Imose patent discloses a pile woven upholstery fabric comprised of a base fabric and pile yarns woven into said base and bonded thereto. A critical feature of the Imose patent is that the ground thread comprising the base fabric is made from a core part consisting of fibers which do not have thermo-fusion bonding properties and a sheath part consisting of a mixture of both thermo-fusion bonding property fibers and non-thermo-fusion bonding property fibers interposed between each other. *See* Imose patent at ¶ 21. The reasons given in the Imose patent for the particular base thread structure is that if the ground thread were made from only thermo-fusion bonding property fibers, the heating of the fibers that is employed to fix the pile yarns will cause the entire ground thread to become a hard rod. *See* Imose patent at ¶¶ 5 and 7. In other words, the sheath component of the Imose patent requires a combination of two different types of materials, thermo-bonding and non-thermo-

bonding fibers, in order for the ground thread to achieve a proper bond with the pile yarns without a loss of flexibility.

The Imose patent does not disclose every element of the claimed invention. To the contrary, the Imose patent specifically requires that the sheath component of the base thread comprise a mixture of thermo-bonding and non-thermo-bonding fibers. A base thread comprising an elastomeric core and an elastomeric thermoplastic sheath from which a thermosetting material is absent is simply not taught or suggested by the Imose patent. As a result, the Imose patent cannot serve as the basis for a rejection under § 102(b). *See PPG Industries, Inc. v. Guardian Industries, Inc.*, 75 F.3d 1558 (Fed. Cir. 1996) (to anticipate a claim, a reference must disclose every element of the challenged claim). Accordingly, the applicant requests respectfully that the rejection of claims 12-15 and 17-19 under 35 U.S.C. § 102(b) based on the Imose patent be withdrawn.

Moreover, with respect to any assertion of obviousness as to claims 12-15 and 17-19, the Imose patent actually teaches away from the present invention. A reference may be said to teach away "when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). Here, the Imose patent expressly cautions against constructing the sheath from thermo-bonding fibers ***without also using*** non-thermo-bonding fibers as well to preserve the flexibility of the base thread. In so doing, the Imose patent teaches away from the present invention by discouraging a departure from the sheath configuration specified therein. *See id.; see also Gillette Co. v. S.C. Johnson & Son, Inc.*, 919 F.2d 720 (Fed. Cir. 1990). As a result, the teachings of the Imose patent render it incapable of serving as the basis for a rejection under 35 U.S.C. § 103.

Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the Imose patent in view of *Woven Pile Fabrics in the Automotive Industry*, Moulin and Ven de Wiele. This rejection is traversed respectfully. The disclosures of the Moulin and Ven de Wiele reference does not disclose a base thread consisting essentially of an elastomeric core and an elastomeric thermoplastic sheath. As a result, the Moulin and Ven de Wiele reference cannot compensate for the deficiencies of the Imose patent as set forth above. Thus, in view of the patentability of the claims from which claim 16 depends, claim 16 is similarly patentable.

CONCLUSION

In view of the above amendment and remarks, the applicant requests respectfully that the Examiner reconsider the outstanding rejections of the claims set forth in the Final Office Action in the prior prosecution. It is respectfully requested that the Examiner contact the undersigned by telephone at her convenience in the event the Examiner has any questions or comments regarding the above arguments or continues to believe that the claims remain unpatentable over the prior art.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES

12. A method of making a composite fabric comprising the steps of:

forming an arrangement of fibers in contact with composite yarns wherein the composite yarns comprising an elastomeric core and an elastomeric thermoplastic sheath disposed about the core wherein the melting point temperature of the sheath is at least about 10°C lower than the melting point temperature of the core and wherein the sheath does not include thermosetting material;

heating the arrangement of fibers and composite yarns to a temperature above that of the melting point temperature of the sheath of the composite yarns but below that ~~of~~ the melting point temperature of the core of the composite yarns whereby said fibers are attached to said sheath; and

cooling the composite fabric.

17. A method of making a composite pile fabric comprising the steps of:

forming an arrangement of composite yarns as ground warp yarns and filling yarns and yarns as pile wherein the composite yarns each comprise an elastomeric core and an elastomeric thermoplastic sheath disposed about the core wherein the melting point temperature of the sheath is at least about 50°C to about 75°C lower than the melting point temperature of the core and wherein the sheath does not include thermosetting material;

heating the arrangement of yarns and composite yarns to a temperature above that of the melting point temperature of the sheath of the composite yarns but below that of the melting point temperature of the core of the composite yarns; and

cooling the composite fabric.